

**National Institute of Standards and Technology
Manufacturing Extension Partnership
Advisory Board
Minutes of the September 24, 2015 Meeting**

Background

The Department of Commerce (DOC), National Institute of Standards and Technology (NIST), Manufacturing Extension Partnership (MEP), Advisory Board met in an open session from 8:30 a.m. to 4:00 p.m. on September 24, 2015 at the Hyatt Regency in Dallas, Texas. Approximately 46 attendees, composed of Advisory Board members, NIST, and MEP participants, guest speakers, and observers, attended the meeting. Carroll Thomas, Director of MEP, is the Designated Federal Officer for the MEP Advisory Board.

Attendees

Board Members

Denny Dotson, Chair, Dotson Iron Castings

Eileen Guarino, President, Greno Industries

Bernadine Hawes, Senior Research Analyst, Community Marketing Concepts

Tommy Lee, President, Vulcan, Inc.

Vickie Wessel, Chair, NIST MEP Advisory Board, and Founder and President, Spirit Electronics, Inc.

Ed Wolbert, President, Transco Products, Inc.

NIST MEP Participants

Kari Reidy, Manager of Communications, NIST MEP

Mike Simpson, Director of System Operations, NIST MEP

Carroll Thomas, Director, NIST MEP

Mark Troppe, Director of Partnerships and Program Development, NIST MEP

Observers

Clara Asmail, NIST MEP

Bob Bengel, NWIRC

DeAnn Berg, ND MEP

Dan Berglund, SSTI

Buckley Brinkman, WMEP

Larry Blackledge, UW-Stout MOC

Kelly Buchanan, Foundation for Manufacturing Excellence

Tom Bugnitz, Manufacturer's Edge

Dusty Cruise, Missouri Enterprise

Misty DePriest, TMEP

Kellie Ecker, SDMTS

Eric Esoda, NEPIRC
Jeff Graham, ATN
Anthony Gomez, NIST MEP
Diane Henderson, NIST MEP
Carrie Hines, ASMC
Mimi Hsu, Lockheed Martin
Doug Jensen, ATN
Wes Kelly, SDMTS
Wiza Lequin, NIST MEP
Robert Lycas, MMTC
Barry Miller, DVIRC
Phil Mintz, NC MEP
Petra Mitchell, Catalyst Connection
Ben Rand, Insight Consulting
Tony Richards, ND MEP
Kim Stebic, NWIRC
Dave Stieren, NIST MEP
Dale Stoller, NC MEP
Dana Stone, ATN
Dileep Thatte, NIST MEP
Gary Thompson, NIST MEP
Ben Vickery, NIST MEP
Phillip Wadsworth, NIST MEP
David Walrath, Manufacturing Works
Tab Wilkins, NIST MEP

Welcome, Introductions, and Opening Remarks

Speaker: Vickie Wessel, Chair, NIST MEP Advisory Board

Ms. Wessel called the meeting to order at approximately 8:45 a.m.; Ms. Wessel made introductory remarks and had the Advisory Board members and meeting participants introduce themselves.

Presentations

State of MEP

Speaker: Carroll Thomas, NIST MEP

Carroll Thomas provided updates on the MEP program and on the current legislative climate. The new federal Fiscal Year begins on October 1, 2015. The House and Senate mark for the MEP FY16 budget remains at \$130M.

NIST MEP Appropriations History

FY 2014 \$128.0M
FY 2015 \$130.0M
FY 2016 (President's request) \$141.0M
House and Senate Mark \$130.0M

NIST MEP FY 2016 Spend Plan

Total Available Funds \$135.9M

- Assumes FY16 House & Senate mark of \$130M plus estimated FY15 carryover and estimated prior year recoveries

Existing MEP Center Renewals \$103.8M

- Fully fund existing Center cooperative agreements for a period of 12 months and extension funding due to re-competition

Additional MEP Center Funding \$11.0M

- Round 2 not completed

Centralized MEP System Support \$5.1M

- Programmatic and Non-programmatic Contracts/Cooperative Agreements

NIST MEP (Staff Labor, Benefits, Supplies, Travel, etc.) \$10.7M

- Assumes full NIST MEP Staffing

NIST Overhead \$5.3M

Total Planned Expenditures \$135.9M

Update on MEP activities

MEP continues to be named in legislation (note that acts have not been passed)

- H.R. 8, North American Energy Security and Infrastructure Act of 2015; MEP is mentioned on Page 83: To increase the value and capabilities of the industrial research and assessment Centers, the Centers shall- “(A) coordinate with Manufacturing Extension Partnership Centers of the National Institute of Standards and Technology;
- S. 2012, Energy Policy Modernization Act of 2015 in coordination with the private sector and appropriate agencies, including the National Institute of Standards and Technology, to accelerate adoption of new and existing technologies and processes that improve energy efficiency; coordinate with MEP Centers.
- Round II Competition winners were announced
- Alaska is a new organization
- Manufacturing Day-
 - Approximately 1715 organizations signed up as of September 24; goal is 2000 participants
 - Participants may sign up at mfgday.com
- MEP National Conference is planned for Spring 2017
- MEP Center Planning/Advisory Committee- Seeks to assist Center Directors in financial planning and training
- Board Training/New Board Orientation- Late February 2016 for discussion
- Next Advisory Board meeting in late February 2016, in coordination with Hill Day on March 1 in the DC area. Theme may be Board enrichment.

Message Clarification on Technology Acceleration and NIST Labs for the purpose of:

- Establishing a system-wide capability to offer it intuitively
- Ensuring awareness of available resources in the NIST Labs and how to connect
- Connections outside of NIST with other labs for direct access
- Re-engaging in the Strategic Plan and including Advisory Board
- Three-Five year plan
- Branding and establishing system standards- i.e. MEP Center websites, Center Directors engaged in developing standards
- Looking to engage “Intuitive” Leaders across the system to help assist SME needs

Updates in Center Director Leadership

- Wyoming- Dave Walrath is the Interim Center Director
- Alabama- Doug Jensen is new Center Director
- New Mexico- Jennifer Sinsabaugh is the Interim Center Director
- Arizona- Currently recruiting for a Center Director

NIST MEP Deputy Director- Currently being selected

- DOC and OPM approval will follow
- Additional management positions to be filled:
 - Executive officer
 - Manufacturing Policy & Research Manager
 - Panel Review Manager

Q: What is the timeline for filling the Deputy Director position?

A: In the next two weeks; approval will take another six weeks.

Our Mission

To enhance the productivity and technological performance of US Manufacturing

Vision

Changing the way the world defines manufacturing

Enabling the next great revolution in manufacturing

Advancing and transforming US manufacturing through the power of technology and partnerships

Strategic Goals

To Enhance Competitiveness

Champion Manufacturing

Develop Capabilities

Support Partnerships

Discussion

- MEP needs to support Centers including assistance with workforce issues.

- Need for continuity of MEP branding across States.
- Name recognition is critical to secure federal funding.
- Changing how the world sees manufacturing is a bold Statement.
- There is uncertainty about what the future of manufacturing looks like but MEP will be the catalyst.
- MEP seeks to reach people in a purposeful way, build a strong network, and impact US manufacturing to impact the world.
- Build on capabilities rather than replicating efforts.
- How NIST determines product development offerings.
- What it will take to achieve the Vision.
- Vast differences among 50 States in terms of cultures and laws; speaks to customized needs of areas.

Trends, New Developments, and the Road Ahead

Speaker: Dan Berglund, SSTI

Mark Troppe introduced Mr. Berglund as the CEO and President of the State Science and Technology Institute (SSTI), an organization that brings together policy makers and practitioners interested in technology, economic development, entrepreneurship, and innovation. SSTI has partnered for over a decade with NIST and assists with informing strategy for the MEP system.

Environment

- New jobs paid an average of 23% less than jobs created before recession, according to US Conference of Mayors in Aug 2014
- Median wage of people aged 25-34 fell from 2007 to 2013 in every industry but health care since recession
- Average hourly earnings rose 2% year-on-year in February, 2015: about the same as in February, 2010
- This is in part contributing to growing income inequality
- In 2012, the top 5 percent of earners were responsible for 38 percent of domestic consumption, up from 28 percent in 1995
- Top 5 percent earners increased spending 17% since 2009 to 2013 in that time period. Remaining 95% increased their spending just 1%.

Income inequality

- Income heading to the educated
- Percentage distribution of household income based on education has changed over time. Decline in people who have less than high school education.
- In 1991 they made up 12% of total household income, now declined to 5%.
- Those holding a Bachelor's degree or more increased significantly: from 37% to 50%.

Income disparity is reflected in where we live

- Shrinkage in the share of neighborhoods across the US that are predominantly middle class or mixed income: to 76% in 2010, down from 85% in 1980
- And a rise in the shares that are majority lower income (18% in 2010, up from 12% in 1980) and majority upper income (6% in 2010, up from 3% in 1980), according to the Pew Research Center.
- Seeing more wealthy neighborhoods, segregated, hollowing out of the middle class.

Income and college completion rate is closely tied to family income rate

- Born in the 1980s and completed college
 - Nearly half of the children in top-income quartile complete college
 - A tenth of the children in lowest-income quartile complete college
- That gap has grown compared to children born in the 1960s

Concerns about technology and jobs in the past year

- About 1 in 8 workers in April 2015 survey by CNBC concerned that in the next 5 years their job could be replaced by technology
- Among workers making less than \$30,000 per year, 25 percent concerned their job could be replaced by technology in the next five years
- One fifth of those with a high school degree or less are afraid of losing their job to technology

Budget/policy stalemate at federal level leaves a level of uncertainty about the future.

Economic anxiety/direction of country

- Voters' views: Is the country on the Right track?– 29%; Wrong track– 63%
- Gallup Economic Confidence Index in negative territory

Public attitudes tested in focus group (words/future)

- SSTI has undertaken a focus group to design an online survey of 1000 voters.
- Washington, DC area polling firm Greenberg Quinlan Rosner Research developed a general policy agenda to get voter's reactions.

Voters were asked impressions of words and were rated positive or negative:

Innovation

- 65% positive reaction
- Associated words: creativity, progress, new, advancement, growth

Entrepreneurship

- 49% positive
- Associated words: risk-takers, brave, owning own company, freedom, new companies

Technology

- 40% positive/15% negative
- Associated words Centered on information technology

Scientific research

- Positive, every word association is orientated toward medical

Manufacturing

- First word with more negative association; layoffs, offshoring, overseas, pollution

Key highlights:

Convert research into businesses and jobs

Increase investment in research

Access to financing for start-ups

Investments in STEM education

Support for initiative:

- If this initiative is advanced in a significant way, it can open up opportunities for me or people like me.- 65% agree
- If this initiative is advanced in a significant way, it can change the American economy for the better.- 84% agree
- If this initiative is advanced in a significant way, it can open up opportunities for my children, grandchildren and the next generation.- 90% agree
- Voters in focus group had a longer view of long term benefit.
- 57% more likely to support presidential candidate
- Strongest initiative item gaining support- Ensure that the US has a workforce that is trained for the jobs of the future.- 93% favor

State Economic Development Program Expenditure Trends:

\$6.65 Billion States have actually spent on economic development investments in FY14

\$7.05 Billion States have appropriated economic development investments in FY15

\$6.97 Billion States have collectively proposed on economic development investments in FY16

State environment:

- Challenges in State economic development spending
- Growth of quasi-public corporations for State economic development
- Convergence of economic, community and workforce development
- Increased demands for accountability and transparency

Q: Who has an increased demand for transparency?

A: Everybody. We are seeing headlines of economic development deals gone wrong. The media, legislators, and governors are asking more questions.

Challenges SSTI members cite:

- Sustainability of their organizations
- Developing meaningful partnerships
- Workforce
 - Shortage of skilled workers
 - Inclusion and diversity

State reactions to MEP:

- Manufacturing is a way to address income inequality and education pay differentials
- Policymakers have a better understanding of manufacturing but are influenced by voters
- Desire for MEP to play a broader role in addressing manufacturing issues
- Match issues identified as an obstacle for MEP Centers playing a bigger role
- Re-competition has provided a means of addressing match issue, opening new dialogues, and encouraging alignment with States

Opportunities to build on MEP's reputation:

- Outside assessment and impact lends credibility to MEP
- Remaking MEP's image beyond Lean
- Trusted credible results
- Contact with small manufacturers
- Workforce
- Exporting/global connections
- Commercializing research
 - Increased interest from federal and local government on resources being dedicated toward funding the commercialization of research

Discussion

- Regarding statistics on income and the deviations that have occurred it would be interesting to have similar studies done on small businesses.
- Small businesses face challenges in that publicly held companies are driving margins down for small suppliers but are still maintaining large profit margins for stockholders.
- Many small companies cannot afford to give raises to employees resulting in income disparities between publicly held companies and privately held companies.
- Operating practices of manufacturers are impacting profitability and growth levels of small businesses.
- MEP brings a unique positioning in the marketplace and relationships with manufacturers developed through the program's work.
- Challenge in flexibility of MEP Centers to take on a larger role. If match is changed on a permanent basis that provides more long term stability for the Centers to think about a larger role.

Q: Are States interested in MEP playing a broader role because there is nobody in that space doing this?

A: Yes, this is part of the advantage that the MEP system has. It has to a certain extent a monopoly on manufacturing assistance and contacts with manufacturing. For State policy makers, MEP is the logical place to start. In general, every State has an MEP Center and a manufacturing association. Working with the manufacturing association is not the group they want to work with on a political level because that priority may not align with legislators.

Q: Have you done research on two year college systems, technical schools, and trying to promote that as a workforce development initiative?

A: Yes, there are initiatives around the country. There is a list of programs that a number of States have implemented. They are looking at community college as a way to get people into higher education systems, getting them retrained, or as a more affordable starting point to a four year degree. The Tennessee program of offering tuition and fees for community college started a wave of interest in this at the State level. The President also proposed it in his last State of the Union Address. In the focus group's level of interest on specific policy priorities, number one was a trained workforce for the US future and the second was a loan forgiveness program for students entering STEM fields.

Q: Who was the focus group and what was their background?

A: 31 swing voters specifically in swing States: Iowa, Ohio, North Carolina, and New Hampshire. The polling group used a broad cross section. The online survey in the field right now is of 1000 online registered voters; it is an oversampling of swing voters.

Technology Acceleration Subcommittee Update

Speakers: *Mark Troppe, NIST MEP; Clara Asmail, NIST MEP; and Ben Vickery, NIST MEP*

An overview of the Advisory Board Committee on Technology Acceleration (ABCTA) activities and charter was provided that included defining technology acceleration, reaching out to Center leadership, and providing Centers the opportunity to provide input.

About the ABCTA Background report:

- Prepared in response to ABCTA charge to provide Board guidance to shape MEP's Technology Acceleration strategy and activities.
- Compilation of information requested to provide necessary background for construction of Implementation Plan.
- Identified sources of relevant information, collected and analyzed data from a variety of sources including MEP Centers, published research, and others.
- Available at the NIST MEP public site (<http://nist.gov/mep/about/advisory-Board-meetings.cfm>) and on the MEP Enterprise Information System (MEIS)

About the TA Implementation Plan:

- Background- Provides context, history and purpose of ABCTA
- Work Plan- a slightly abbreviated & updated edition of the Draft Work Plan presented to and approved by the MEP Advisory Board on January 21, 2015
- Key Findings from executing the Work Plan- summary of data collected and analyzed 11 Recommendations, grouped into three categories:
 - Setting Priorities
 - Barriers and Incentives
 - Scale-Up and Sustainability

- Available at the NIST MEP public site (<http://nist.gov/mep/about/advisory-Board-meetings.cfm>) and on the MEP Enterprise Information System (MEIS) to download

ABCTA Recommendations

Setting Priorities: NIST MEP should adopt a rubric of agreed-upon criteria for evaluating future Technology Acceleration opportunities, setting priorities, and investing and allocating resources.

Organizational Lead: ABCTA and NIST MEP

Deliverable: Finalized list of criteria

Due Date: June 1, 2015

Criteria include:

- aligning with Administration priorities
- aligning with NIST and MEP mission
- tapping core strengths of MEP Centers and the MEP System
- generating high return for low investment of resources
- addressing key SME needs
- identifying ready, willing and able partners

Setting Priorities

MEP should give priority to developing and implementing TA opportunities with NIST labs and National Network for Manufacturing Innovation (NNMI) Institutes over the next year, while also pursuing the emerging collaboration with DOE labs.

Organizational Lead: NIST (MEP, Labs and Advanced Manufacturing Program Office) and Centers that are engaging early with Institutes

Deliverable: Listing and descriptions of specific actions engaging MEP with NIST Labs, NNMI Institutes, and DOE Labs.

Due Date: Ongoing, with report back at September MEP Advisory Board meeting

NIST MEP has executed an MOU with the Department of Defense (DOD) to:

- provide an overarching framework to identify opportunities for collaboration between the DOD-led Institutes and NIST MEP
- define how Institutes and MEP Centers can work together to facilitate SME outreach, engage SMEs to participate in Institute R&D planning and conduct, and implement and deploy Institute R&D results
- Example: 9 Centers and DMDII out of Chicago pilot to develop Digital Manufacturing 101 for MEP Centers and SME clients. Will use as template with DOE.

Other Lab activities:

- Working with DOE's Advanced Manufacturing Office to execute MOU similar to MOU with DOD to frame collaboration between NIST MEP and DOE-funded Institutes.
- Developing MOU between DOC and DOE (Secretary-level) to accelerate commercialization of Federally-funded R&D, enhance diffusion of energy technology and advanced manufacturing techniques, and foster economic growth.
- NIST MEP partnering with NIST's Engineering Lab to organize Small Manufacturer Robotics Workshop on 10/7/15 to allow SMEs to gain insights into trends and emerging robot technologies and learn how others have addressed and overcome challenges of integrating
- Robots into existing manufacturing processes. Several MEP Centers are bringing manufacturing clients to share information.
- MEP Technology Acceleration Connector will develop and maintain a process to leverage and track technology opportunities from the NIST Labs and respond to requests from partners and stakeholders.

Partnering opportunity via DOE Small Business Voucher Pilot

DOE Small Business Voucher Pilot

- \$20M
- EERE will match selected SMEs with National Lab experts and give vouchers valued at \$50 - \$300K exchangeable for Lab technical assistance
- US owned small businesses defined as under 500 employees
- SMEs must match 20% of project in funds or in-kind
- SMEs need to identify a technical challenge inherent in bringing a clean energy
- SBV Pilot Schedule:
 - Round 1: Sept 23- Oct 23, 2015
 - Round 2: Feb- May 2016
 - Round 3: June- Sept 2016
- DOE could bring anecdotal evidence to Congress from the pilot if the program is impactful.

Q: Have any MEP Centers expressed interest?

A: Yes. Many and not just the ones expected to. We have has asked each Center to have at least one project.

Barriers and Incentives: Reduce Risk

The MEP system should work diligently to enable permanent change in the cost share requirement to 1:1 to reduce Centers' risk of experimenting with Technology Acceleration services.

Organizational Lead: MEP Centers, MEP advocates, partners and stakeholders

Deliverable: Legislation that permanently changes the cost share requirement from 2:1 to 1:1.

Due Date: as soon as Congressional action is feasible

- External to NIST MEP staff

Barriers and Incentives: Reduce Risk

NIST MEP should provide more competitive funding and, when available, supplemental funding, to Centers willing to experiment with Technology Acceleration strategies, tool development, and partner development.

Organizational Lead: NIST MEP advised by the Technology Acceleration Working Group

Deliverable: FFO to provide funds to Centers to develop Technology Acceleration products, services and practice across the system.

Due Date: During FY16, depending upon availability of funds

Work underway in the Technology Acceleration Working Group (Committee on Scale-Up and Sustainability) building upon August 2015 Technology Acceleration workshop at NIST and September Working Group meeting, and will continue at November 2015 meeting.

Barriers and Incentives: Professional Development/System Learning

Develop an 18 month systematic plan for system learning across the MEP system that would include education on new technologies, their implications, and Technology Acceleration strategies employed by Centers.

Organizational Lead: NIST MEP P-PDO working with System Operations team

Deliverable: A plan for system learning through Fall 2016

Due Date: Report back at September 2015 Board meeting

- NIST MEP is the process of developing an 18 month systematic plan to educate Center staff on a broad range of Technology Acceleration issues.
- Technology Acceleration Workshop conducted at NIST on 8/11/15.

Workshop engaged NIST MEP HQ, MEP Centers (AR Manufacturing Solutions, Catalyst Connection, CMTC, GA MEP, NC MEP, Polaris, TMAC, TN MEP), and partners (SSTI, NIST Lab, Advanced Manufacturing National Program Office) to develop a shared understanding and language around TA strategy and Implementation Plan's Professional Development/System learning recommendation in particular.

Work underway in the Technology Acceleration Working Group

- Work on definition of technology and related topics
- Working in concert with NIST MEP System Operations Division via internal meetings and at September MEP Update Meeting sessions on MEP Learning Organization.

Barriers and Incentives: Professional Development/System Learning

Launch a Technology Acceleration Working Group to encourage peer-to-peer learning and build relationships that strengthen the network.

Organizational Lead: NIST MEP Partnership and Program Development team and the Center Leadership Team for the ABCTA

Deliverable: A charter and initial membership roster for the working group along with a plan of proposed activities for the first year.

Due Date: Ongoing but report back at September Advisory Board meeting

Q: Is the group looking to develop a deployment strategy for long term use that should be part of the Strategic Plan?

A: We have to identify technologies and figure out how to get them inserted, but there is communication that must be in place. We are collaborating with system learning and working with another working group on workforce. It is already in the Strategic Plan and we are working to operationalize it.

Q: How do you identify those that become a candidate for deployment?

A: Using criteria do determine what fits, intuition at the Center level, and understanding where to get resources.

Q: What is the budget for these programs?

A: Funding requirements are coming through the Re-competition. Centers are proposing activities to advance the agenda, using other agency funding, and possible competition through MEP. The Scale-Up and Sustainability group is working on it.

Q: As candidates for vouchers are identified in the Small Business Voucher pilot will there be collaboration or is it individual?

A: It will be proprietary. Projects will be selected with no consortia.

Technology Acceleration Working Group Charter

Barriers and Incentives: Performance Measures

Review MEP Center performance measures to explore quantitative and qualitative options for capturing impacts or other ways for acknowledging Centers' work as they engage in Technology Acceleration activities.

Organizational Lead: NIST MEP

Deliverable: In the context of the overall review of MEP performance measures, produce specific recommendations of ways in which MEP Centers can receive credit for their Technology Acceleration work with SMEs.

Due Date: Upon completion of the review of MEP performance measures (December 2015)

- Work underway in the Technology Acceleration Working Group Committee on Performance Measures resulting from 8/15 Technology Acceleration workshop at NIST.
- The 8/15 Technology Acceleration workshop efforts were built upon at the September Working Group meeting and will continue at 11/15 meeting.

Barriers and Incentives: Performance Measures

The MEP performance measures seek to increase Centers' ability to articulate their own metrics and work with Centers to encourage and assist in developing useful metrics for Technology Acceleration activities.

Organizational Lead: NIST MEP

Deliverable: Specific examples of individual Centers' performance measures documenting Technology Acceleration impacts based on Center work

Due Date: December 2015 – Summer 2016

- Long term goal, but work underway in concert with prior performance measures recommendation

Scale-Up and Sustainability

NIST MEP should work with Centers to consider formal options for how to best stay informed about the growing number of cross-cutting technologies and emerging opportunities in order to fully engage and leverage the value of the MEP Centers.

Organizational Lead: NIST MEP working with the Technology Acceleration Working Group

Deliverable: A plan for designating staff and/or Centers as expert resources in individual emerging technologies. The plan should take advantage of existing relationships and expertise and seek to disseminate that across the system as appropriate.

Due Date: December 2015

Discussion

- Pilot could be sustainable; collect lessons learned to develop an overarching template of actions as additional technologies are selected.
- Be cognizant of structuring it as a long term plan to become a service that is offered as part of the NIST program.
- Regarding consistent performance metrics, they are not as revealing as they should be about Center operations.
 - Subsets could be developed that are not used to report at the national level but that measure the productivity of Centers relative to the charter of the program.
- MEP is evaluating activity based metrics to incentivize Centers.
- R&D component speaks heavily to the sustainability of an SME.
- The working group was diligent about including process variables.

Q: For the DOE Small Business Voucher program does the \$20M funnel through all MEPs?

A: There is no authority for that. They are funding the labs through vouchers and there is no cash.

Board Governance Subcommittee Update

Speakers: Mike Simpson, NIST MEP and Gary Thompson, NIST MEP

The Board Governance Subcommittee examined how to increase connectivity between the National Board and Center Boards, ensure that Board members serve as manufacturing advocates, and strengthen Board accountability.

Goals and Objectives

- Evaluate mechanisms and facilitate linkages to increase communication between the MEP Advisory Board and MEP Center Boards
- Inventory distinctive practices across Center Board
- Provide Board development resources

Deliverables

Communication Plan: To expand the communication between the MEP Advisory Board and NIST MEP with the MEP Center Boards.

Distinctive Practice: To expand the sharing and learning and to develop MEP's capabilities as a learning organization and high performance system

Board Self-Assessment: To emphasize the critical role the Board plays in the success of an MEP Center. Self-assessment is an efficient way to get input from Board Members on how the Board is performing against generally accepted best practice standards.

Foundation Building

- Certificate on Education on Non-Profit Governance
 - BoardSource 6-week Training on Fiduciary Oversight, Financial Oversight, Board Roles and Responsibilities, Fundraising, By-Laws & Board Structure
- MEP Connect
 - Board Governance Resource Library
 - Center Director recruitment, job descriptions, assessment tools, holding meetings, presenting financials, etc.
 - Connecting MAB activities with Local Board activities
 - Information resource for New Board orientation, Quarterly update meetings, events, webinars, National Advisory Board events, etc.
 - Possible meeting in March convening National Board and Center Boards

Communication Plan

- Board Orientation Webinar
- 2 Orientation Webinars conducted: May 19 & Aug 19
- 32 participants from 19 Centers
- New Board orientation scheduled for Nov 2015
- Regional Calls
- Topical discussions
- Assessment tools
- Distinctive Practices
- Newsletter - first issue Oct 2015 to increase communication between National and Center Boards

Distinctive Practice- Board Self-Assessment

Webinars scheduled

- Sept 30, 2015
- December 10, 2015- sharing information on analysis of Center by-laws on term limits, meeting requirements, etc.
- March 24, 2016- Voice of and for Manufacturing- Approximately 600 Board members serve as an untapped resource.

Board Self-Assessment Tools

- 3 Sample assessment tools shared across system
- Board engagement by Regional Managers
- Centers that utilize a tool: CO, KS, MO, OK, NM
- Customized self-assessment tools

Next Steps

- Monitor and track feedback and use of assessment tools
- Continue to develop webinars on distinctive practices
- Center Director hiring, selection of new Board members, financial oversight

- Inventory distinctive practices across system
- MEP Connect
- Full launch of site to Center key staff
- Continue to build resource materials

Discussion

- Board Chair forums allow discussion of challenges and engage the National Advisory Board in a problem solving capacity
- Currently Regional Managers convene several times a year on a regional call for Board members
- Importance of national input and having standards on Boards
- Board Chairs need support; advantages of sharing information

MEP Competition Update

Speakers: Carroll Thomas, NIST MEP and Diane Henderson, NIST MEP

Update on pending match legislation

- On January 1, 2016 NIST will start from scratch
- The Re-competition is challenging for the MEP system but valuable in creating awareness of the program
- Gaining a 1:1 cost share on a temporary basis allows a period of time to demonstrate how MEP can reach smaller manufacturers and add more value without concentrating on match

Timeline of State Competitions

- Start dates will be staggered to alleviate burden on recipients, NIST Program office, and Grants office.

Round 1

- FFO Published August 1, 2014
- Awards Announced February 2015

Round 2

- Two pending States under review
- FFO Published June 5, 2015
- Awards Announced September 2015

Round 3

- Target FFO Publication: January 2016
- Anticipated Award Announcement: Summer 2016

Round 4

- Target FFO Publication: July 2016
- Anticipated Award Announcement: Early January 2017

Rationale for Competition

- Allocate more funding to States with greater concentrations of manufacturers
- Empower MEP Centers to experiment more with new products and services (technology acceleration, supply chain and workforce, etc.)
- Working to serve clients including small, emerging, rural companies
- Bring MEP practice closer to other federal programs that refresh awardees periodically (similar to SBDC funding model)

Competition Benefits to States

- Increased funding to bring dollar per SME up to national average
- Immediate readjustment of the cost share to 1:1 for the first three years of the award
- A five year award reducing the annual renewal paperwork
- A reduction in the number of panel reviews from every two years to one at the third year
- Resetting of the funding levels to reflect the national recognition of the importance of manufacturing and the regional distribution of manufacturing activity
- Reduction and simplification of reporting requirements
- Opportunity to re-align Center activities with State economic development strategies

Aggressive Outreach Effort

- 15-20 organizations publicizing MEP Competition- Examples include SSTI, IEDC, EDA, NADO, etc.
- State visits
- Regional Meetings
- Engaging prior to FFO
- Informational webinars for interested applicants
- Round 3 webinars to be conducted January and February 2016
- Webinar recordings and presentations will be made available on the MEP website:
<http://nist.gov/mep/ffo-regional-forum-State-competitions-03.cfm>

2.0 MEP Centers- Round 1 Competition

States - Colorado, Connecticut, Indiana, Michigan, New Hampshire, North Carolina, Oregon, Tennessee, Texas, Virginia

Kick-Off Meeting conducted week of July 27th

10 Centers, 35 Center Participants

2 ½ days of content incorporated by input from Centers including:

- Business Operations- Organizational Changes in Business Operations
- Partnerships- Changes in Partnerships and On-Boarding new partners

- Products and Services- Services for very small, rural or underserved clients
- Poster board session (Centers & NIST)
 - o Poster boards were created for Centers to bring home and use as a marketing tool and engage stakeholders
- Interactive Lab Tours, also voted on by Centers
- Additive Manufacturing- NIST Engineering Laboratory
- Digital Manufacturing- Cyber Security for Manufacturing- NIST Information Technology Laboratory
- Robotics for Manufacturing Applications- NIST Engineering Laboratory

Q: Did you survey participants for feedback on the presentations, content, and what was missing?

A: Yes, we got great feedback. We learned there was a desire for additional time in regards to the labs. Walking through the tour may have felt rushed so instead of doing three we will do two to allow more time for interactive dialogue. They liked voting on topics; the poster boards identified new initiatives and challenges, so we want to feed into that and share information that is relevant. Regarding too much or too little information, 2.5 days worked well. There was positive feedback on Dr. Willie May, Dr. Phil Singerman and Carroll Thomas speaking to the audience. They appreciated the connections at each level.

Round 2

States: Alaska, Idaho, Illinois, Minnesota, New Jersey, New York, Oklahoma, Utah, Washington, West Virginia and Wisconsin

The winners of the Round 2 MEP State Competition are:

Illinois - Illinois Manufacturing Excellence Center (Peoria) - \$6,287,387

Minnesota - Enterprise Minnesota, Inc. (Minneapolis) - \$3,317,060

West Virginia - West Virginia University Research Corporation (Morgantown) - \$625,001

Alaska - Southwest Alaska Municipal Conference (Anchorage) - \$332,245

Idaho - Boise State University (Idaho TechHelp -Boise) - \$800,295

Washington - Washington Manufacturing Services DBA Impact Washington (Mukilteo) - \$3,168,589

New Jersey - New Jersey Manufacturing Extension Program, Inc. (Cedar Knolls) - \$3,518,032

Oklahoma - Oklahoma Alliance for Manufacturing Excellence, Inc. (Tulsa) - \$1,636,450

New York - New York State Department of Economic Development (Albany) - \$7,481,492

- Two remaining State applications are still under review.

Q: Since Ohio didn't submit the application on time does their cooperative agreement expire?

A: No, the approach has been to extend cooperative agreements long enough for when awards would be announced. In Ohio's case we allowed an extension to their current award, until the state is competed in Round 3.

- More competition in Round 2 vs Round 1
- Potential competitors are partnering in application process
- Start Date of Awards – January 1, 2016
- Funding Period of Performance: January 1, 2016 – March 31, 2017
- Pre-Award Webinars
 - Two Webinars to focus on selecting topics for Kick-Off, voting on Lab Tours and development of the Three Year Detailed Outcome Plans & Budgets
- MEP is providing assistance on proposals and key initiatives including specific measurable outcomes
- Kick-Off Meeting for Round 2 Awardees – December 15-17th
- Conducted lessons learned session – incorporating suggested changes into overall Review Process and content of FFO for Round 3

Round 3

- FFO developed and currently with NIST Office of Chief Counsel, Grants Management Division and Federal Assistance Law Division for review.
- Clarifying language around Board Governance
- Notification of pre-award webinars and kick-off
- Targeting January 2016 publication – will post for 90 days
- Proposals Due – April 2016 (approx.)
- Anticipated Award Announcement – June/July 2016
- Start Date – October 2016

Round 3 Regional Forums

- Provide information beyond typical webinars done for Rounds I and II, which occurred after the FFO had been released.
- Meeting in advance of FFO release provides for the open exchange of ideas and allows potential bidders less familiar with MEP to better understand the process and content and expectations for operating an effective MEP Center.
- Following each regional forum presentation, potential applicants will have a chance to schedule 20 minute private one-on-one meetings with NIST MEP representatives to ask follow-on questions.
- NIST MEP would attempt to conduct meeting with State officials that coincide with the regional forum trips, to the extent feasible.

Dates:

September 17th – Boston, MA

3 States Represented (MA, PA, VT)

October 16th – San Francisco, CA

November 17th – Atlanta, GA

<http://nist.gov/mep/ffo-regional-forum-State-competitions-03.cfm>

Round 4 Regional Forums and Competition

- Regional Forums (2-3 locations)
- Targeting Spring 2016
- Targeting July 2016 publication – will post for 90 days
- Proposals Due – End of September/early October 2016 (approximately)
- Anticipated Award Announcement – End of 2016/Early 2017
- Start Date – April 2017

Discussion

- Regarding operations in various structures of organizations and different models:
 - State funded, university affiliated, private, etc.
 - Despite aligning Board Governance issues there is a lack of fiduciary oversight in some Centers
 - Red tape issue in State and university run Centers
- Consider long term structure of organization:
 - How much autonomy they allow the Center to have
 - Whether it fits with MEP mission
 - How are they operating
 - Are they following the infrastructure MEP needs to have in place
 - Looking at structure of Board and how organization will be run
 - Verify they operated according to operating plan
- Regulations are interpretations of the statute that will be turned into standard operating procedures
- The Regional Managers and Federal Program Officers work closely with Centers to ensure Centers meet requirements of the program
- Avoid micromanaging Centers
- FFO is structured to address Board governance
- Regional Managers attend Board meetings regularly
- FFO incorporated operational outcomes, mostly numeric
- Use criteria of FFO and operating plan in annual and panel review going forward, make sure everything is captured, ensure accuracy for auditing purposes, keep track of P&Ls

- MEP program is unique in that grants are handled outside of NIST MEP
- A webinar should be scheduled on understanding cooperative agreements, MEP system, and statute of program

Q: Have you got any feedback from Centers on the process and what was that feedback?

A: I did reach out to Round 1 on sharing words of wisdom to future applicants. Specific to the process we haven't reached out but we could get their input. The feedback we did get was shared at regional forums and we will continue to do that.

Q: How many Centers did not have to go through a Re-compete?

A: Seven. We are working internally to transition them over to the new model and prepping them for when they would be up for review.

Discussion about MEP Strategic Plan

Speakers: *Carroll Thomas, NIST MEP and Mike Simpson, NIST MEP*

Carroll Thomas announced that MEP will be recruiting candidates for two open positions on the MEP Advisory Board in the upcoming year. Interested parties may refer nominations to the NIST Director's office.

Mission

To enhance the productivity and technological performance of US manufacturing.

Role

MEP's State and regional Centers facilitate and accelerate the transfer of manufacturing technology in partnership with industry, universities and educational institutions, State governments, and NIST and other federal research laboratories and agencies.

Programmatic Strengths

- National program with at least one Center in every State and Puerto Rico.
- Federal/State, public-private partnership with local flexibility.
- Cost share policy that matches federal investment with State and private sector investment.
- Market driven program that responds to the needs of private sector manufacturers.
- Leverage partnering expertise as a strategic advantage.
- Local knowledge of, focus on, and access to manufacturers.

Goals/Strategic Objectives

Enhance Competitiveness

Enhance the Economic Competitiveness of US Manufacturing

Deliver services that create value for all manufacturers, particularly focusing on small and mid-sized manufacturers (“SMEs”)

Enable Centers to make new manufacturing technology, techniques, and processes usable by US based small and medium sized companies

Develop “Data as a Service” for Competitive Advantage

Champion Manufacturing

Serve as a Voice to and a Voice for Manufacturing

Champion the importance of SMEs and ensure their inclusion in the economic competitiveness policies and programs of the US government

Increase Role of National and Center Boards

Support Partnerships

Support National, State, and Regional, Manufacturing Eco-Systems and Partnerships

Provide Centers with local flexibility and adaptability to operate based on regional priorities and client needs

Support national policy goals

Develop Capabilities

Develop MEP’s Capabilities as a Learning Organization and High Performance System

Promote System Learning

Evolve MEP Performance System

Continue administrative reforms

State Reactions to MEP

- Manufacturing a way to address income inequality and education pay differentials
- Policymakers better understanding of manufacturing but influenced by voters
- Desire for MEP to play a broader role in addressing manufacturing issues
- Match issues identified as an obstacle for MEP Centers playing a bigger role
- Re-competition has provided a means of opening new dialogues and encouraging alignment with State

Opportunities to build on MEP’s reputation

- Remaking MEP’s image beyond Lean
- Trusted credible results
- Contact with small manufacturers
- Workforce

- Exporting/global connections
- Commercializing research

MEP as a Learning Organization by Mike Simpson

Traditional Approaches

- MEP Meetings- Quarterly, Regionally, Adhoc
- Working Groups- Lean, IT, Workforce, etc.
- MEP University- Face to face instructor lead courses
- MEP National Conference
- Group Email Lists
- Success Stories, and Case Studies

Knowledge Management: Getting the Right Information to the Right People

What was missing is: Address how “they” learn; Who they are

- How our Staff Learns
- How our Partners Learn
- How We Learn
- How our Clients Learn
- Plant managers
- Chief Executive Officers

Results from a Recent ASMC Survey on MEPU and the Service Working Groups

9 Question Survey

Working Group Related Questions

- Are Working Groups Important to Your Success and the Success of the Program?
- Would You or Your Staff Participate in Service Area Working Groups?
- If yes to the above, what Working Groups would you like to see established?
- If you do not plan to participate in Working Groups, why do you not see their value?

MEP University Related Questions

- Choose two ways that you prefer to have courses offered?
- Did you ever participate in training offered by the Original MEP University?
- What did you like, what did you dislike?
 - People like sharing knowledge, solving problems, not just meeting for the sake of meetings.
- What would make the service more valuable to the MEP System?

- If you never participated in MEPU, what content would be of value to ensure your participation?

Results and Feedback

Working Group Related Questions

Are Working Groups Important to Your Success and the Success of the Program?

YES – 90% (18 out of 19 surveyed)

Would You or Your Staff Participate in Service Area Working Groups?

YES – 90% (18 out of 19 surveyed)

If yes to the above, what Working Groups would you like to see established?

Growth	Workforce
Innovation	Market Intelligence
Sustainability	Salesforce
Megatrends	Sales Force
Supply Chain	Export
Tech Acceleration	

If you do not plan to participate in Working Groups, why do you not see their value?

- NIST/MEP wants us to focus at the “C” level; however they continue to focus our agendas on tools and products.

MEP University Related Questions

Choose two ways that you prefer to have courses offered?

- Face to Face
- Working Groups
- Web Based
- On the Job Training
- Best Practice Reports

Did you ever participate in training offered by the Original MEP University?

YES – 90% (18 out of 19 surveyed)

What would make the service more valuable to the MEP System?

- Focus on the customer
- Smaller and more active and engaged materials and presenters
- Conference calls don’t allow for an interactive environment

If you never participated in MEPU, what content would be of value to ensure your participation?

- Mastering front of room
- Executive coaching
- Collectively working on the same tool

The Working Sessions

- Workforce
 - Role for MEP Centers
 - Centers are engaged in pipeline activities, workforce issues, identifying products and services to deliver to companies, ecosystem
- Technology Acceleration
 - 3 sub-groups focused on implementing plan
- Growth
 - Hiring of personnel that are well suited to growth
 - Working on webcast to record and make available to MEP system
- Continuous Improvement
 - Purpose is to help companies grow
 - Focus on expense, revenue profitability, and engaging CEO
 - Developing Business Process Innovation Group

MEP as a Learning Organization Working Sessions

- Received input from Center leadership
- Re-Deployment of MEPU
- Face to face, other models
- Skill development, Lean, Six Sigma, and professional development
- Delivery mechanism; video conferencing
- Train the trainer activities requested; tracking certifications.
- MEPU should fit into Centers' budget and time away from office
- Identify specific audience

Working Groups are:

- Important for building network among Centers and sharing knowledge
- Using charters to stay focused
- Developing email lists for problem solving

National Meeting Approaches

- How to integrate communication from different working groups; How to stay focused

National Conference

- Sharing of knowledge/take home ideas that work
- Networking
- MEP as a system
- Support for recognition of staff through awards
- Center Board engagement
- Plan meeting agendas far ahead
- Cybersecurity

Distinctive Practices/Working with Outside Experts

- Identified need for outside experts and where to source that information:
 - o Field practitioners, surveys, reports on trends on manufacturing, projects submitted to MEP to identify best practices
- May need outside experts in new areas such as smart technology, cybersecurity, strategic planning, and food safety
- Develop a skills matrix as a resource

Discussion

- Cybersecurity and resources for manufacturers working with aerospace/DOD companies
- Defense Acquisition Regulations System (DFARS)
 - o Certifying by accepting order that there is a secure network
 - o Need legal staff to review clauses
- Risk mitigation activities to build on in system
- Identifying next steps
 - o How to integrate cyber into larger system, approach larger audience, supply chains, workforce issues related to cyber, etc.
- Standards
 - o How to network standards together from various organizations
 - o Small companies lack tools to assess risk mitigation
 - o Companies want to see history of risk mitigation activities before signing contract
 - o ISO standard
- Document intentions of meetings, themes for the year, and activities to support them

NIST MEP Strategic Discussion

Leveraging NIST Labs

- Climate and approaches to push TA and NIST technology
- Working with manufacturers to use NIST labs as a resource or testbed to solve problems
- How to make it scalable

- MEP Centers should contact NIST MEP to facilitate connections
- Feedback reveals that Centers are largely unaware about Lab capabilities

Services for Very Small, Rural & start-up SMEs

- Value to Centers in working with small (under 20 employees) SMEs
- 1 out of 4 jobs in rural communities is in manufacturing
- Impact of plant closure is significant in rural areas
- Start-ups are seen as the future; States want MEP Centers involved
- Identify gazelle companies (rapid growth)
- Emerging leaders program
- Build Quarterly Meeting agenda around working with small companies
- Measurement of impact vs. absolute numbers- i.e. one job could be 20% growth for a company
- Develop metrics specific to transformational clients

Developing Data as a Service

- Future data; IBIS reports
- Industry analysis
- Developing lists of clients to contact
- Post work analysis; training
- Center efficiencies- Centers have their own measurement tools
- Examine how to present data geographically

Increasing the Role of Center and National Boards

- Communication
- Add value

Center Flexibility and National Policy Goals

- Ecosystem and opportunities to advance goals
- Do Centers have flexibility to take advantage as it fits with business model
- Centers view policy goals as opportunities rather than mandates
 - Opportunities to meet new partners, test new products, and receive seed money

Discussion

- Challenge in prioritizing nine objectives in Strategy; Learning organization is a high priority
- Build on current capabilities; mobilize in a strategic way
- Positive energy is noted around changes in the Centers

- Trend on STEM education; collaborating to bring STEM issues to the forefront among industry workgroups
- MEP should focus on Strategic Plan on a periodic basis at Advisory Board meetings to maintain continuity
- Understand sustainability of programs to maintain effective deployment on a long term basis
- Maintain focus on keeping partners involved

Next Meeting

The next Advisory Board Meeting is late February, 2016 in the Washington, DC area.

Adjournment

With no further business, Ms. Wessel adjourned the meeting.